E72-10195
CR-128410

TYPE 1 PROGRESS REPORT

September 1 - October 31, 1972

a. Land Use Management in Minnesota # 283

b. Joseph E. Sizer (ST 360)

c. As in the last report, the greatest problem we face is the lack of precision product imagery for interpretation. For certain areas images that are useful to us have substantial cloud cover. These images, requested as precision products, have been cancelled. The real problem here is one of delay. If bulk color composites could be automatically substituted, our orders could be processed without waiting in the product-request queue two times.

d. This project is aimed at updating and adding detail to the Minnesota Land Management Information Systems (MLMIS) utilizing ERTS imagery from several seasons and supplemental aerial photography.

The ground truth mapping initiated during the last reporting period is largely completed for this cropping season. In excess of forty-five townships have been field checked for agricultural land use. Ground investigation of areas covered by 6 June 1972 RB-57 photography has also begun.

The receipt of NASA aerial photography has enabled us to begin interpretation of land use from this data source for comparison with ERTS-derived data. Much time so far has been spent training personnel and acquainting them with the test areas. Thus far interpretation of over ten townships has been completed.

(E72-10195) LAND USE MANAGEMENT IN MINNESOTA Progress Report, 1 Sep. - 31 Oct. 1972 J.E. Sizer (Minnesota Univ.) 31 Oct. 1972 3 p CSCL 08M G3/13 00195 Unclas N73-10374

d. cont'd. The project coordinator, Dr. Dwight Brown, attended the ERTS Investigators Meeting at G.S.F.C., Greenbelt, MD. on September 29. The Symposium on Remote Sensing of the Environment held in Ann Arbor, Michigan, October 2-6 was also attended by Dr. Brown and Steven Prestin, Research Assistant.

e. No scene-corrected imagery has been recieved for Minnesota. However, preliminary analysis of bulk imagery suggests that the forty-acre data cell used in MLMIS can be utilized in interpretation of ERTS data. High quality bulk images of the Twin Cities metropolitan area suggest that detail in urban land use patterns is much greater than originally anticipated. This implies a greater work effort in this area than was planned. Further more, the forest classes of land use can also be usefully divided into sub-categories. Preliminary analysis of one rather low quality image also indicates that sub-classes of wetlands can be identified. Bright are the prospects (given some scene-corrected images to work with) of improving the potential detail that ERTS can contribute to MLMIS.

f. No reports or talks have been presented.

g. No changes in the investigative effort are planned. However, if scene-corrected imagery does not arrive shortly before the completion of aircraft data interpretations, we will explore the possibility of utilizing bulk imagery to produce color-combined images for interpretation in the interim. In addition, we plan to begin interpretation of urban areas as images become available in either bulk or scene-corrected form.

h. No changes have been made in the standing order form.

i. No ERTS image content analysis has been performed on bulk imagery because no scene-corrected images have been received.

j. Six retrospective request forms were filed during the period: 9/13/72, 9/13/72, 10/1/72, 10/1/72, 10/1/72, 10/27/72.

k. No budgetary changes are foreseen at the end of this reporting period.

l. No personnel changes have occurred during this reporting period.